Mr. O. Thomas on

44. Haversia albolimbata, sp. n.

Elongate, convex, narrow, acuminate posteriorly, shining, black, the antennæ and tarsi rufescent ; above densely clothed with shining, adpressed scales, which are coppery-brown in colour, except along the sides of the prothorax and elytra, around the eves, on a median line on the prothorax, and on the hidden scutellum, where they are wholly whitish, the scales on the under surface smaller, whitish, those on the upper surface of the femora cupreous; densely, finely punctate, above and beneath. Rostrum densely punctate, substriate, and squamose at the base, bare and almost smooth thence to the tip. Prothorax a little broader than long, rounded at the sides, narrowed in front and behind, margined at the base. Elytra a little wider than the prothorax, parallel to near the middle, and rapidly narrowed thence to the apex, margined at the base, feebly punctato-striate, the interstices flat. Ventral segments 1 and 2 sulcate down the middle.

Length (excl. head) $3\frac{3}{4}$, breadth $1\frac{1}{2}$ mm. (3.)

Hab. FALKLANDS (Th. Havers).

Two specimens received by the Museum in 1873, both injured by pinning, one with the vestiture intact. The scales on the upper surface are so closely placed as to completely hide the sculpture, as in various species of somewhat similarly coloured *Tychius* and *Sibinia*.

Horsell, Dec. 1917.

XIX.—On small Mammals from Salta and Jujuy collected by Mr. E. Budin. By OldField Thomas.

(Published by permission of the Trustees of the British Museum.)

THE British Museum has recently received a collection of Mammals made in Salta and Jujuy by Mr. E. Budin, to whom we were indebted for those from Jujuy described in 1913*. This further collection contains so many species of interest that a list of it seems worthy of publication.

The specimens come from two distinct localities—one, Manuel Elordi, comparatively lowland (500 m.), on the western Chaco country of the Upper Vermejo, and the other, Leon, on the hill-country to the north-west of Jujuy town, at an altitude of 1500 metres. The animals obtained

* Ann. & Mag. Nat. Hist. (8) xi. p. 136 (1913).

at this latter place, like the previous Jujuy collection, all show a strong relationship to the species of the middle highlands of Bolivia, 500 miles further northwards, first made known through the efforts of Mr. Perry O. Simons.

The most interesting forms in the collection are the little hare of the Vermejo, *Sylvilagns b. gibsoni*, the first occurrence of the Leporide in Argentina, and the new genus *Hypsimys*, *Akodon*-like in general appearance but differing from all members of the *Akodon* group by its extreme hypsodontism.

1. Molossus rufus, Geoff.

2. 8. Manuel Elordi, Vermejo, 500 m.

Quite like Paraguayan specimens representing M. castaneus, but whether that is quite the same as the Cayenne M. rufus I am somewhat doubtful. Several specimens of the latter obtained by Mr. Cherrie are among the blackest of the group.

2. Oryzomys sp.

J. 4; 2. 2, 3, 6. Manuel Elordi, Upper Vermejo.

3. Oryzomys sp.

♂. 13, 14, 32, 34, 45; ♀. 9, 10, 27, 28, 41, 44. Leon, Jujuy, 1500 m.

These two species of *Oryzomys* are both of the difficult *flavescens* group ; the Jujuy one is the larger of the two.

4. Phyllotis darwini tucumanus, Thos.

♂. 12, 16, 23, 36; ♀. 15, 17, 18, 19, 20, 24, 29, 30, 35. Leon, Jujuy.

5. Graomys lockwoodi, sp. n.

3. 5. Manuel Elordi, Vermejo, Salta, alt. 500 m. 7th August, 1917. B.M. no. 18. 1. 1. 6. Type.

Most nearly resembling the Bolivian G. domorum, with which it agrees in size (though its feet are longer), general colour, and the slaty bases to the hairs on the chest and belly, those of the chin and throat only being white to their bases. Tail sharply bicolor, blackish above, white below, not so heavily haired as in the type of G. cachinus.

Skull of about the same size as in *G. domorum* and *cachinus*, but its bulke larger than in the former, smaller than in the latter.

Incisors turned backwards towards the throat more than 13^*

usual, the index being only 56° . Graomys is always opisthodont, but usually has the index about $60^{\circ}-65^{\circ}$, so that this species, if the character proves to be constant, is the most marked of all in this respect.

Dimensions of the type (measured in the flesh) :---

Head and body 131 mm.; tail 158; hind foot 32; ear 25. Skull: greatest length 35; condylo-incisive length 31.7; zygomatic breadth 18; nasals 14.7; breadth of brain-case 15; palatilar length 1.57; palatal foramina 7.3; bullæ 6.7×5.5 ; upper molar series 5.4.

Hab. and Type as above.

In its longer foot and larger bullæ, as compared with G, domorum, this western Chaco species shows two of the usual modifications induced by desert conditions. G, cachinus and chacoeusis have still larger bullæ, and the latter has a pure white under surface.

Named in honour of Mr. Charles Lockwood, of Buenos Ayres, by whose kindness as intermediary all the business arrangements with Messrs. Kemp and Budin have been so greatly facilitated.

I notice that Mr. Osgood would amalgamate *Graomys* with *Phyllotis*, or at least consider it only as a subgenus. But the convenience of having a special generic name for so definite a group appears to me to make its retention advisable. The characteristic supraorbital ridges, which are never found in *Phyllotis*, are clearly marked even in half-grown specimens of *Graomys*.

6. Oxymycterus paramensis, Thos.*

J. 31, 42, 46, 52. Leon, Jujuy, 1500 m.

These Hocicudos appear to agree with the typical series of O. paramensis, from the highlands near Cochabamba, in every detail, and thus afford a striking instance of the community of the faunas of the two regions concerned.

7. Akodon lactens, sp. n.

♀. 37. Leon, Jujuy, 1500 m. 23rd August, 1917.
B.M. no. 18. 1. 1. 37. Type.

Externally approaching A. varius and simulator, but skull more as in A. obscurus.

* A misprint in the original description (Ann. & Mag. Nat. Hist. (7) i.x. p. 139, 1902) may be here corrected :—

In line 8 of description, for " black, lined " read " black-lined."

Size about as in *varius*. General colour above mixed blackish and buffy, the resulting combination near "buffy 'brown," the lining rather well marked, the head greyer, the rump more buffy. Sides and belly distinctly more buffy, the ends of the hairs on lower sides and below strong cinnamon-buff; the chin and interramia prominently contrasted white. Ears about the colour of the head. Claws rather long, especially anteriorly, as usual in the *obscurus* group, the front claw both in front and behind 4 mm. in length, the posterior therefore not exceeding the anterior.

Skull on the whole very like that of A. obscurus, of the same stout heavy build, with squared but not ridged interorbital region, and minute interparietal. Palatal foramina long, reaching to the level of the second lamina of m^{1} .

Incisors even more proodont * than in *A. obscurus*, their angle with the tooth-row 95° in the type, specimens of *obscurus* ranging from 85° to 92°. Their front surface in the type unusually light coloured, pale yellow, lightening to white at the tips. Molars as in *A. obscurus*.

Dimensions of the type (measured in the flesh) :--

Head and body 101 mm.; tail 67; hind foot 22; car 16. Skull: greatest length 27.2; condylo-incisive length 27; greatest breadth 15.5; nasals 9; interorbital breadth 5; breadth of brain-case 12.3; palatilar length 13; palatal foramina 6.6; upper molar series 5.

Hab. and Type as above.

This is a very well marked species, differing widely in colour from the other members of the *A. obscurus* group, to which the characters of its skull seem to ally it. In external appearance it is not unlike *A. varius* and *simulator*, apart from the prominent buffy colour of its lower surface. Its contrasted white chin is just as in *simulator*.

8. Akodon puer cænosus, subsp. n.

♂. 22; ♀. 21, 33. Leon, Jujuy, 1500 m.

Agreeing with true *A. puer* in general characters and in the remarkably small size of the teeth, but the colour is darker and duller, less suffused with buffy or tawny. Dorsal surface dark olivaceous, near "brownish olive"; sides but little more buffy. Under surface not sharply defined, terminal half of hairs dull "pinkish buff."

* Cf. Ann. & Mag. Nat. Hist. (9) i. p. 35 (footnote) (Jan. 1918).

Skull apparently quite as in puer.

Dimensions of the type (measured in the flesh) :-

Head and body 82 mm.; tail 72; hind foot 20; ear 16.

Skull: tip of nasals to back of interparietal 18; zygomatic breadth 11.3; nasals 9; interorbital breadth 4.6; palatilar length 10.2; palatal foramina 6; upper molar series 3.6; breadth of m^1 1.0.

Hab. as above.

Type. Adult male. B.M. no. 18. 1. 1. 38. Original number 22. Collected 21st August, 1917.

This Akodon seems alone related to A. puer, the remarkably small size of the molars separating the two from any other species known to me. In colour, as usual, the Jujuy form is darker and less bright than that of the dry Bolivian highlands.

9. Hypsimys budini, gen. et sp. nn.

J. 38, 39, 40, 47, 48; 2. 43. Leon, Jujuy, 1500 m.

Hypsimys, gen. n.

External characters quite as in *Akodon*, but claws longer, the anterior as long as or longer than the posterior.

Skull in general form rather narrower than in Akodon, but not of the excessive narrowness found in Deltamys. Muzzle narrow. Supraorbital edges rounded; slightly squared posteriorly, but not ridged. Brain-case smooth, without ridges. Interparietal present, but small. Zygomatic plate slanted in front, but not so narrowed as in Oxymycterus and Microxus. Palatal foramina long. Bullæ not specially enlarged.

Teeth.—Incisors slender, narrow, flat in front, fairly orthodont in set, the index about 82°. Molars quite unique in this group, highly hypsodont, almost as much so as in *Chinchillula*, though of so different a type to that as to make comparison difficult. They are just what *Akodon* teeth might be expected to become if made very hypsodont, high, narrow, with the vertical grooves extending far down towards the roots, of simple sectional pattern, that of m^2 pandurate *, that of m^3 subtriangular. The roots are long and peculiarly flattened laterally, and in consequence the alveolar

* Ridgway, 'Nomenclature of Colours,' 1st edition, 1886, pl. xiv. fig. 18.

,

holes are deep narrow slits instead of being round. M^1 has one long anterior root, one long internal one, and a posteroexternal more cylindrical; the usual median external one practically obsolete. M^2 with three roots, m^3 with two.

Pattern of unworn teeth not yet known.

Genotype. Hypsimys budini, sp. n.

This genus, while closely resembling Akodon in external characters, is readily distinguishable by its strongly developed hypsodontism, both roots and crowns of the teeth being highly modified. It is clearly a specially hypsodont Akodon, and has no near relationship to other hypsodont genera, such as Chinchillula or Andinomys, which belong to different groups of the subfamily. Its discovery is a most interesting addition to our knowledge of South American Muridæ, no very hypsodont member of this group having been hitherto known, although a slight hypsodontism is present in many of them.

The following is a description of the type-species :---

Size and general appearance very much as in Akodon fumeus, Thos., of Bolivia, to which the resemblance is so close that the two were supposed to be the same until the skull was examined. General colour above dark olivaceous, becoming warmer and browner on the rump. Under surface dark greyish, washed with whitish or buffy. A distinct white spot on the chin. Ears rather darker than head. Hands and feet greyish, the hairs at bases of claws white; claws comparatively long, the fourth anterior about 3 mm. in length, the posterior 2.8. Tail about as long as the body without the head, well-haired, distinctly bicolor, blackish above, whitish below.

Dimensions of the type (measured in the flesh) :---

Head and body 89 mm.; tail 68; hind foot 21; ear 17. (An older specimen measures: head and body 115 mm.; tail 76; hind foot 23.)

Skull (of type): greatest length 27.5; condylo-incisive length 25.4; zygomatic breadth 14; nasals 10; interorbital breadth 4.2; breadth of brain-ease 12.2; palatilar length 24; palatal foramina 6.8; upper molar series, crowns 4.3, alveoli 4.9.

Hab. as above.

Type. Young adult male. B.M. no. 18. 1. 1. 44. Original number 47. Collected 29th August, 1917.

This interesting mouse is so exactly like one of the ordinary Akodons that no one would suspect its real peculiarities until the skull was examined. Indeed, it is so

192 On small Mammals from Salta and Jujuy.

like the Bolivian A. fumeus that I at first supposed it to be referable to that species, from which it is scarcely to be distinguished externally except by its long fore-claws.

Mr. Budin notes on one specimen, "caught at foot of pine tree-among the roots."

10. Dasyprocta variegata boliviæ, Thos.

9.7 (young). Manuel Elordi. Recently described from Yacuiba.

11. Sylvilagus brasiliensis gibsoni, subsp. n.

3.1. Manuel Elordi, Vermejo, Salta, 500 m. 25th July, 1917. B.M. no. 18.1.1.8. Type.

Essentially similar to S. b. paraguensis, but the mottling of the upper surface slightly less strong and the general colour a little greyer. Crown with large greyish confluent patches at the anterior bases of the ears, ouly a very small greyish spot indicating their position in the allied form. Under surface whiter, the white of the chest extending up the chest above the level of the fore-limbs, and much reducing the greyish-buff collar, which is little more than an inch in antero-posterior diameter, as compared with three or four inches in paraguensis.

Skull about as in *paraguensis*. Postorbital processes not touching terminally the bone of the frontal behind. Occipital shelf with its posterior angles not developed, so that it is nearly semicircular in shape, while it is practically square in *paraguensis*; but only one specimen of *saltæ* is available for comparison with three examples of *paraguensis*.

Dimensions of the type (measured in the flesh) :--

Head and body 310 mm.; tail 10; hind foot 71; ear 55. Skull: greatest length 62.5; condylo-incisive length 56; zygomatic breadth 31.5; upper tooth-series (alveoli) 12.

Hab. and Type as above.

The reduction of the dark collar and the presence of the grey patches at the bases of the ears clearly indicate a subspecific difference in this *Sylvilagus* of the Upper Vermejo, as compared with the form found in Paraguay.

This hare, the first and only known member of the group occurring naturally in Argentina, I have named after Mr. Ernest Gibson, to whom our Mammal Survey of the Argentine has been so immensely indebted for the help he has given in the collecting-trips of Messrs. Grant, Kemp, and Budin.

12. Murmosa elegans cinderella, Thos.

3. 11, 25, 49, 51; ♀. 50. Leon, Jujuy. Type-locality. Tucuman.

Mr. Budin notes that this little opossum is the culprit when rats and mice captured in the traps are found partly eaten. But it is certainly not always so, as I found in La Plata that the common Akodon arenicola freely eat their comrades in like ease.

XX.—The Generic Division of the Hedgehogs. By OLDFIELD THOMAS.

(Published by permission of the Trustees of the British Museum.)

In the most recent paper on hedgehogs, that by Satunin*, these animals are divided into three genera—*Erinaceus*, *Hemi-cchinus*, and *Macrocchinus*,—the divisions being based on certain characters of the pterygoids and bullæ first pointed out and used by Dr. John Anderson.

But Satunin's paper, based as it is on Asiatic material only, and drawn up without access to the full literature of the subject, proves to need some modifications and corrections as to nomenclature, and the following notes may be of use to persons wishing to understand the grouping of these animals.

As material increases and has to be classified, labelled, and arranged in Muscum collections, this close splitting of the genera proves to be of great assistance in carrying out the work with accuracy and convenience, and on this account I follow Saturnin in using the groups as full genera.

Synopsis of genera :--

A. Pterygoids and bullæ normal †.

a. Spines on crown divided into two groups by a median parting. Postglenoid processes small, not hollowed out, much surpassed by the mastoid processes.

a². Hallux present.

a³. Coronal parting narrow, inconspicuous.

* Ann. Mus. St. Petersb. xi. p. 1 (1907).

+ As in Anderson, P. Z S. 1895, p. 416, fig. 1, and J. A. S. B. xlvii. pl. iv